UNECE

ESCAP
Economic and Social Commission for Asia and the Pacific

41st UN/CEFACT FORUM

2-5 OCTOBER 2023 | BANGKOK | THAILAND

Some thoughts on navigating complexity

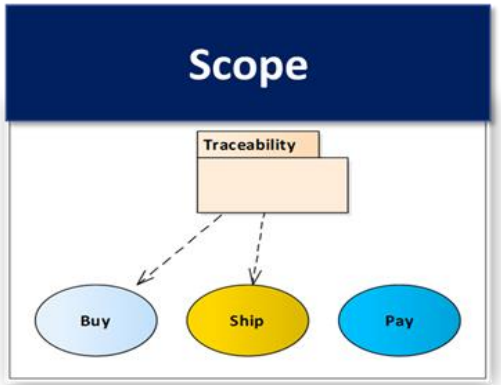
B Hyland
Project Lead

Expected project outputs

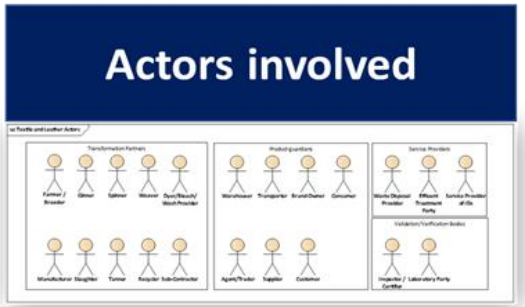
Functional & data requirements

No.	Partner	Description
1	**Agent / Trader**	An agent or trader is a person who has been legally empowered to act on behalf of another person or an entity.
2	**Brand Owner**	A person or company who sells any commodity under a registered brand label.
3	**Customer**	A person who purchases goods and services for personal use.
4	**Customer**	A person or company who buys goods or services from another company.
5	**Dye/Bleach, Wash provider**	A person or company whose trade is the dyeing, bleaching or washing of cloth or other material.
6	**Effluent Treatment Party**	An individual, group, or body having a role in effluent treatment, meaning cleaning industrial effluents, contaminated water from rivers and lakes, and so on in order to reuse the water for additional purposes. Along such lines, water is revitalized and sustained.
7	**Farmer**	A person or company engaged in agriculture business, field crop growing, cattle rearing for the meat or others productions (hides, milk, egg, wool, etc), breeders, rasiers, finishers etc.
8	**Ginner**	A person or company who operates a cotton gin machine which separates the seeds and hulls from the cotton fiber.
9	**Inspector / certifier**	A person or company who inspects something, such as a product, process, organization, to ensure that it complies to requirements or regulations.
10	**Laboratory Party**	An individual, group, or body having a role in laboratory observations.
11	**Manufacturer**	A person or company which makes finished products from raw materials or intermediary products in order to make a profit.
12	**Recycler**	A person or company who recycles, or uses machines to recycle.
13	**Retailer**	A person or company that sells goods to the public in relatively small quantities for use or consumption rather than for resale.
14	**Slaughter**	A person or company (slaughterhouse) who slaughters animals, most often to provide food for humans, but also for the skins (hides).

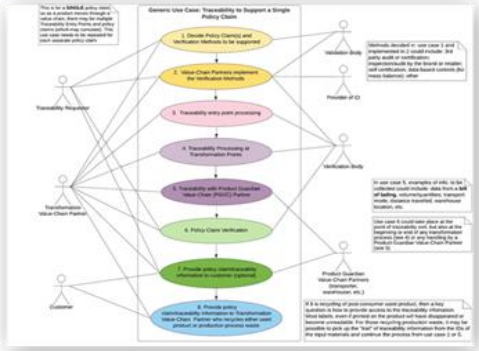
Scope



Actors involved

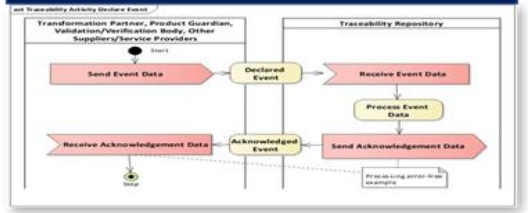


Process diagrams



Business Requirement Specification

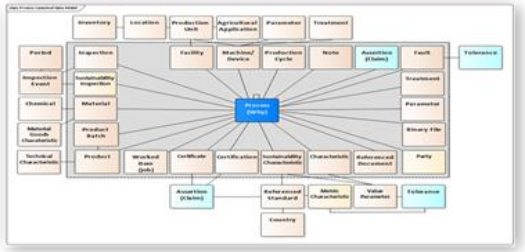
Data exchanges



Data definitions

Term	Description
abattoir (slaughterhouse)	<place> where animals are sent for slaughter at end of life
agent trader	<organisation> buys and sells material at different stages of production and may conduct a small operation on the material that does not chemically alter it
aniline leather	<material> leather whose natural grain is clearly visible either without a surface coating or with a non-pigmented surface coating NB1. The thickness of non-pigmented surface coating is usually less than or equal to 0.01 mm
basification	<process> mild alkali treatment to ensure completion of tanning e.g. treating the mineral tanned stock with a view to forming a large aggregate of metallic compounds and enabling reactive groups of skins to complex with tanning material
Bate	<material> enzymes mixed with an inert carrier used to selectively remove unwanted constituents of hides and skins.
Acid bate	bate that has optimum activity in the pH range of 3 to 5
alkaline bate	bate that has optimum activity in the pH range of 8 to 8.5
bating	the process of removing unwanted interfibrillary proteins by treating the hides and skins with bates to obtain soft and pliable leather with a smooth grain surface
beam	<equipment> convex wooden slab sloping downward from about waist height over which a hide is placed for unhairing, trimming off excess flesh and ragged edges and scudding by hand knife
brand agent	<organisation> buys and sells finished leather on behalf of brands without any transformation of material

Data structures



Setting some limits

1. We are not considering any assertions of conformity established via *legislative processes*

2. We are not considering treatment of *records/information*, such as IoT outputs, production events, product labelling/usage instructions, etc.

3. We are not establishing the '*equivalence*' of data points to provide for quantitative aggregation of records along a supply chain.

Types of attestations under consideration

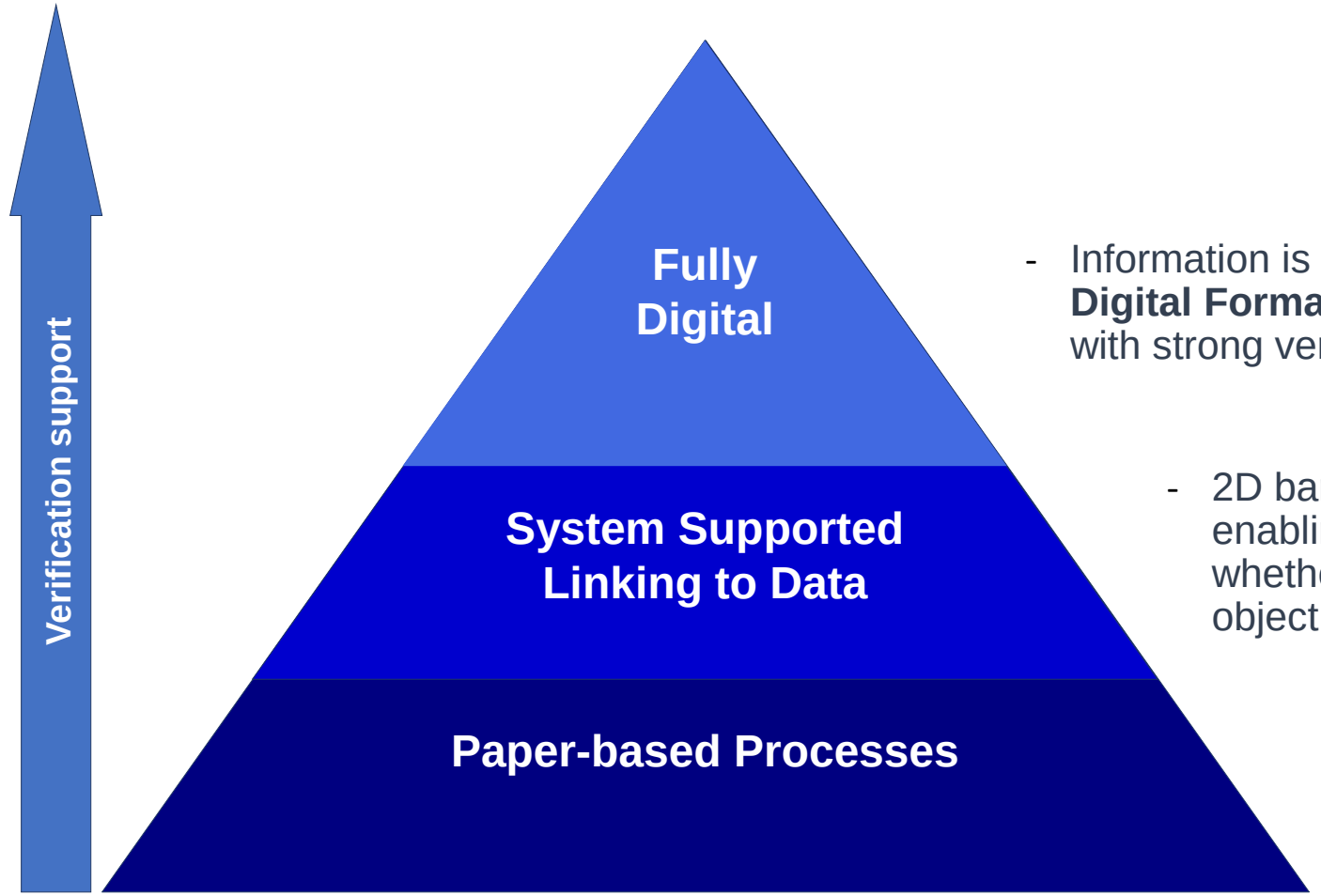
We are primarily interested in attestations arising from **3rd party testing inspection and certification** (per ISO CASCO framing*).

However, there might be other relevant attestations having similar data patterns worth considering:

- 1st party attestations (e.g. Environmental Product Declarations) that have been verified & published by a 3rd party
- 1st party attestations (e.g. production testing) issued by a body directly accredited under global mutual recognition arrangements.

**In work to date, our consideration of certification has been limited to management system and product certifications.*

Life could be messy for a while



- Information is exchanged in **Digital Format Only** with strong verification support

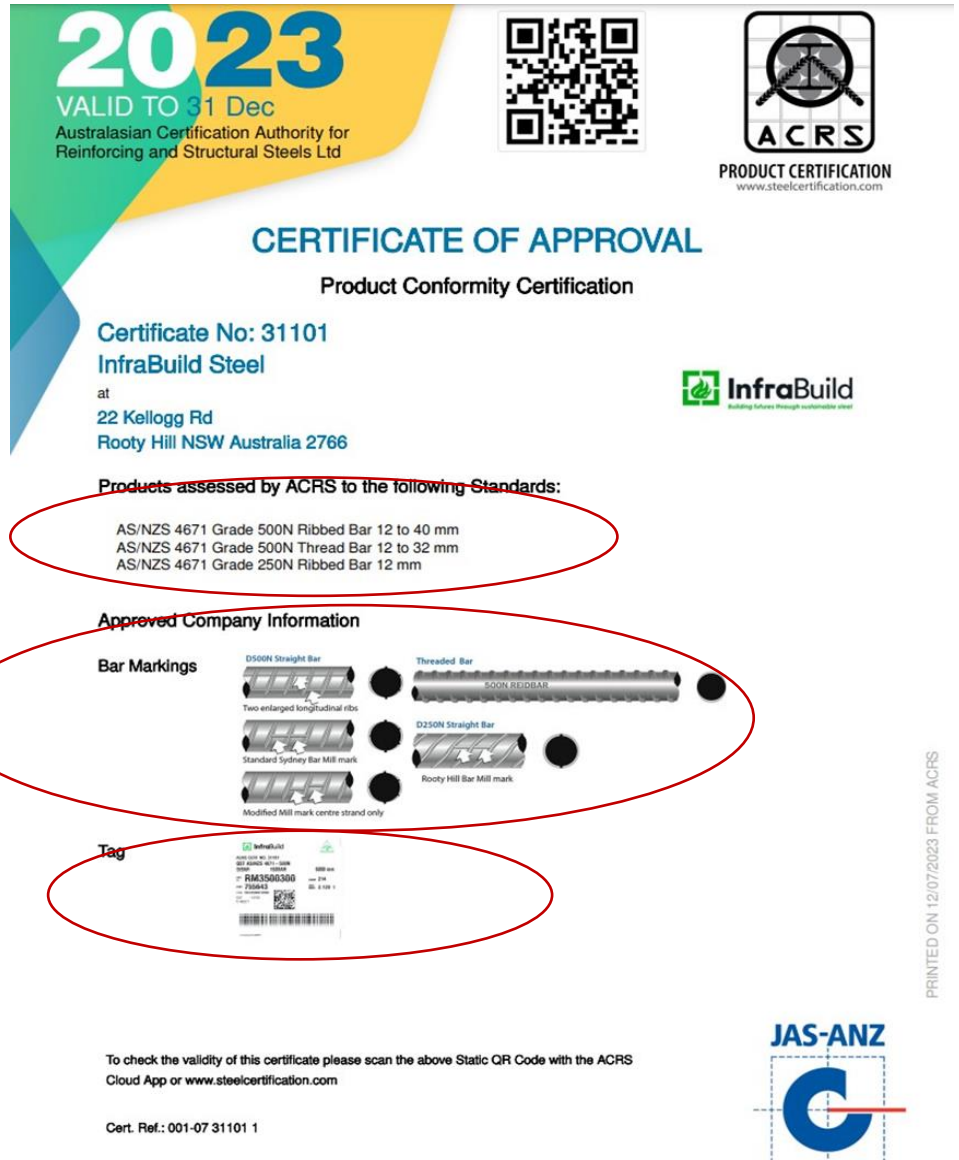
- 2D barcodes **Linking** certificates to **Data** enabling (some) verification of certificate and whether it is associated with the physical object at hand

- No access to systems, entirely manual verification

All levels will co-exist for the foreseeable future

Encoding Data

Not as simple as you might think? ☺



2023
VALID TO 31 Dec
Australasian Certification Authority for Reinforcing and Structural Steels Ltd

ACRS
PRODUCT CERTIFICATION
www.steelcertification.com

CERTIFICATE OF APPROVAL

Product Conformity Certification

Certificate No: 31101
InfraBuild Steel
at
22 Kellogg Rd
Rooty Hill NSW Australia 2766

InfraBuild

Products assessed by ACRS to the following Standards:

AS/NZS 4671 Grade 500N Ribbed Bar 12 to 40 mm
AS/NZS 4671 Grade 500N Thread Bar 12 to 32 mm
AS/NZS 4671 Grade 250N Ribbed Bar 12 mm

Approved Company Information

Bar Markings

D500N Straight Bar
Two enlarged longitudinal ribs
Threaded Bar
500N REIDBAR
D250N Straight Bar
Standard Sydney Bar Mill mark
Rooty Hill Bar Mill mark
Modified Mill mark centre strand only

Tag

RM3500300

PRINTED ON 12/07/2023 FROM ACRS

To check the validity of this certificate please scan the above Static QR Code with the ACRS Cloud App or www.steelcertification.com

Cert. Ref.: 001-07 31101 1

JAS-ANZ

Code lists – a major challenge

Product Certification

This area of conformity assessment activity is splintered into thousands of Schemes globally, each **operated by an individual Scheme Owner** and carrying its 'home grown' set of approaches and language.

Testing

The diversity of testing parameters (product type, procedure/standards, measurands/determinations, etc) is simply vast.

Consider the following descriptions for relevant Testing Standards (AS = Australian Standard):

- AS 3996 **Appendices D4.3 and D4.4** for bicycle tyre penetration resistance
- AS 1012 **Part 14 Clause 6.4 d) i) only** for concrete specimen conditioning
- AS 1012 **Part 14 excluding Clause 6.2** for concrete compressive strength

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Suggested ‘rules of the road’ for the project

1. Stay in our lane! Not diversify, but keep focused on the application of the DPCCE White Paper concepts (which we are not seeking to re-prosecute)
2. Focus on linkages and access to conformity data, rather than the human-readable (and therefore AI-readable?) content of conformity attestations
3. Describe the discoverability of product conformity data in the most technology-agnostic manner that is possible
4. Describe functionality in ways that might reflect low-tech (or no-tech), as well as more advanced approaches
5. Dedicated expert meetings specific to each supply chain Use Case

Thinking about our 'functional architecture'

In **order of priority** for our Use Cases, we will seek to define:

1. KDEs and necessary linkages for conformity attestations, with reference to existing UN/CEFACT web vocabulary (for UN CCL/RDM)
2. Relevant entities* and their potential roles in data capture, data hosting and enabling access for differing levels of digital maturity
3. Legal obstacles and identified opportunities for improvement
4. Approaches in cases where globally recognizable identification protocols may be lacking (industrial components, bulk raw materials, etc)

**Entity identification is a complex area and, while relevant national approaches exist (e.g. Accreditation Body), these may not be fit for purpose in delivering resolvable and verifiable information in all situations, so further work is needed.*

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Let's get started!

BRS Content – aligning expectations

Ensuring we respect the 'separate universes' represented by each use case

Barriers to the scalable adoption of digital conformity data exchange

Priorities for the functional architecture

Working list of vocabulary to be defined

Achieving access to (and verification of) attestations for different levels of digital maturity

Planning next steps and meeting cycles for the BRS development

Thank you!

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Date: 03 I 10 I 2023